

To: Matlock, Dennis[Matlock.Dennis@epa.gov]; Kelly, Jack (R3 Phila.)(Kelly.Jack@epa.gov); Garvin, Shawn[garvin.shawn@epa.gov]
Cc: Helverson, Robert[Helverson.Robert@epa.gov]; Markiewicz, Karl[Markiewicz.Karl@epa.gov]; Hodgkiss, Kathy[Hodgkiss.Kathy@epa.gov]; Ioven, Dawn[Ioven.Dawn@epa.gov]; Burns, Francis[Burns.Fran@epa.gov]; Melvin, Karen[Melvin.Karen@epa.gov]; binetti, victoria[binetti.victoria@epa.gov]; Capacasa, Jon[Capacasa.jon@epa.gov]; Arguto, William[Arguto.William@epa.gov]; Ryan, Daniel[Ryan.Daniel@epa.gov]; D'Andrea, Michael[DANDREA.MICHAEL@EPA.GOV]
From: Werner, Lora
Sent: Thur 2/6/2014 4:11:20 PM
Subject: Re: WV - breaking - another school dismisses with water problems

Hi, Shawn

The symptoms info as we understand it now is based on the animal tox studies (note primarily ingestion based). We also have the summary info from calls to the Poison Control Center.

CDC's website doesn't have much on the symptoms aspect, except as buried inside the MCHM and PPH screening level approach documents that summarize the animal studies.

The best source of public info on symptoms is on the National Library of Medicine's HSDB web entry for MCHM:

<http://toxnet.nlm.nih.gov/cgi-bin/sis/search/r?dbs+hsdb:@term+@DOCNO+8182>

This just refers to eye and skin irritation of 4-MCHM.

Ex. 5 - Deliberative

Depending on individual sensitivities and chemical concentrations, direct contact with water contaminated with a MCHM and PPH mixture could cause skin and eye irritation. Ingesting large volumes of water contaminated with this mixture could result in vomiting, nausea, diarrhea and central nervous system depression. Vapors from MCHM and PPH-contaminated water at elevated temperatures can cause irritation of the eyes and respiratory tract.

In research studies carried out in the 1990s, symptoms of exposure as noted above, were not seen in test animals until much higher concentrations than the levels of MCHM detected in the public water supply in West Virginia. All symptoms are expected to occur shortly (within minutes) after exposure to the contaminated water. Once the exposure ends, these symptoms are expected to rapidly improve.

In the days immediately following January 9, 2014, the West Virginia Poison Center received calls from over 1,900 patients from the Charleston area reporting chemical exposures related to the drinking water. Most reported symptoms included mild rashes and reddened skin from dermal exposure, or GI distress (nausea, vomiting and/or diarrhea) from ingesting contaminated water. The symptoms tended to be mild and self-limiting."

Ex. 5 - Deliberative

Lora

From: Matlock, Dennis
Sent: Thursday, February 06, 2014 10:31:35 AM
To: Werner, Lora; Kelly, Jack (R3 Phila.)
Subject: Fw: WV - breaking - another school dismisses with water problems

Fyi. I'm sure someone will respond.

From: Garvin, Shawn
Sent: Thursday, February 06, 2014 10:20:50 AM
To: Hodgkiss, Kathy; Capacasa, Jon; Melvin, Karen; binetti, victoria; Arguto, William; Matlock, Dennis
Cc: Ryan, Daniel; D'Andrea, Michael
Subject: Re: WV - breaking - another school dismisses with water problems

One more thing - can someone send me the list of symptoms of MCHM and who they were developed by? Thx

From: Garvin, Shawn
Sent: Thursday, February 06, 2014 10:15:34 AM
To: Hodgkiss, Kathy; Capacasa, Jon; Melvin, Karen; binetti, victoria; Arguto, William; Matlock, Dennis
Cc: Ryan, Daniel; D'Andrea, Michael
Subject: Fw: WV - breaking - another school dismisses with water problems

Do we have any additional information on this or the status of the two schools from yesterday? Thx

From: Ferrell, Mark
Sent: Thursday, February 06, 2014 10:03:42 AM
To: Garvin, Shawn
Cc: Capacasa, Jon; Arguto, William; Burns, Francis; binetti, victoria; Miller, Linda; Seneca, Roy; White, Terri-A; schaffer, joan; Ryan, Daniel; D'Andrea, Michael; Matlock, Dennis; Casillas, Laura; Snyder, Raquel; Smith, Bonnie
Subject: WV - breaking - another school dismisses with water problems

<http://www.charlestondailyemail.com/News/breakingnews/201402060030>

Thursday February 6, 2014

J.E. Robins to close early for water quality issues

CHARLESTON, W.Va. -- J.E. Robins Elementary School on Charleston's West Side will close at 10 a.m. today due to water quality concerns.

A woman who answered the phone at the school Wednesday morning said the school was closing because of "a little odor down in the kitchen." Kanawha County Schools Superintendent Ron Duerring clarified the odor was that of licorice.

by Marcus Constantino

Daily Mail Staff

Advertiser

CHARLESTON, W.Va. -- J.E. Robins Elementary School on Charleston's West Side will close at 10 a.m. today due to water quality concerns.

A woman who answered the phone at the school Wednesday morning said the school was closing because of "a little odor down in the kitchen." Kanawha County Schools Superintendent Ron Duerring clarified the odor was that of licorice.

"Cooks were using the dishwasher and they smelled a licorice smell," Duerring said. "We made them stop using the dishwasher and we're going to dismiss the kids at 10."

Duerring said a cook's eyes were reportedly burning. Burning eyes and a licorice odor are both indicators of the presence of crude MCHM, the coal-cleaning chemical that spilled into the Elk River on Jan. 9 and contaminated West Virginia American Water's Charleston treatment facility that provides tap water to some 300,000 West Virginians.

Duerring said "normal protocol" will be followed, which includes notifying the health department, re-flushing the school's water pipes and having the water at the school re-sampled for crude MCHM.

Midland Trail Elementary and Riverside High schools closed early Wednesday after flushing at those schools -- prompted by a water main break in the area -- produced a strong licorice odor in the buildings, causing some students and teachers to become ill.

Both eastern Kanawha schools remained closed to teachers and students today, as well.

Mark Ferrell

EPA Region 3

Office of State and Congressional Relations

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